

IN THE CLAIMS:

Kindly amend claim 1, cancel claims 34 and 35, and add new claims 36-58 as shown in the following listing of claims, which replaces all previous versions and listings of claims in this application.

1. (currently amended) An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator ~~provided directly on the substrate~~ for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a support member provided on the substrate for mechanically fixedly supporting the piezoelectric vibrator ~~at a point~~ only in a region thereof corresponding to a node of vibration of the piezoelectric vibrator; wherein transmission of ~~on the substrate and transmitting~~ the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator is effected only by the support member so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator.

2. (previously presented) An ultrasonic motor according to claim 1; wherein the support member has sufficient elasticity to elastically urge the piezoelectric vibrator against a moving member to drive the moving member in response to oscillating movement of the piezoelectric vibrator.

3. (canceled).

4. (previously presented) An ultrasonic motor according to claim 1; wherein the support member comprises part of the substrate.

5. (canceled).

6. (previously presented) An ultrasonic motor according to claim 4; wherein the piezoelectric vibrator is mounted on the support member.

7. (previously presented) An ultrasonic motor according to claim 1; wherein the support member is provided with at least a part of a drive circuit for producing the drive signal.

8. (canceled).

9. (previously presented) An electronic apparatus having an ultrasonic motor according to claim 1.

10. - 35. (canceled).

36. (new) An ultrasonic motor according to claim 1; wherein the support member comprises a pair of support members disposed on opposite sides of the piezoelectric vibrator.

37. (new) An ultrasonic motor according to claim 36; wherein the support members have an L-shaped form, one leg of each support member is fixedly attached to the substrate, and another leg of each support member is fixedly attached to the piezoelectric element.

38. (new) An ultrasonic motor according to claim 37; wherein the one leg of the support members is soldered to the substrate and the other leg is adhered to the piezoelectric element by conductive paste.

39. (new) An ultrasonic motor according to claim 36; wherein the support members each have an I-shaped form with upper and lower portions having a larger width than a middle portion, the lower portion of each support member is fixedly attached to the substrate, and the upper portion of each support member is fixedly attached to the piezoelectric element.

40. (new) An ultrasonic motor according to claim 39; wherein the middle portion of each support member is flexible so that the piezoelectric vibrator is resiliently biased in contact with the movable member.

41. (new) An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator provided on the substrate for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a support member provided on the substrate for mechanically supporting the piezoelectric vibrator on the substrate and transmitting the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator, the support member having a constriction portion that is thinner than a connection portion connected to the piezoelectric vibrator.

42. (new) An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator provided in a recess provided on the substrate for

receiving the piezoelectric vibrator, the piezoelectric vibrator for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a support member provided on the substrate for mechanically supporting the piezoelectric vibrator on the substrate and transmitting the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator; wherein the substrate has a recess portion for receiving the piezoelectric vibrator.

43. (new) An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator provided on the substrate for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a support member provided on the substrate for mechanically supporting the piezoelectric vibrator on the substrate and transmitting the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator; wherein the piezoelectric vibrator is a laminated structure comprising one

or more piezoelectric elements polarized to undergo expansion-and-contraction vibration in response to the drive signal and one or more piezoelectric elements polarized to undergo flexural vibration in response to the drive signal so that a side face of the piezoelectric vibrator adjacent to the movable member undergoes elliptical movement in response to the drive signal to drive the movable member.

44. (new) An ultrasonic motor, comprising: a substrate; a piezoelectric vibrator disposed on the substrate to undergo vibration in response to a drive signal; a support member for supporting the piezoelectric vibrator on the substrate, the support member being effective to transmit the drive signal to the piezoelectric vibrator; and a movable member disposed on the substrate adjacent the piezoelectric vibrator and driven in response to vibration of the piezoelectric vibrator; wherein the piezoelectric vibrator comprises one or more piezoelectric elements polarized to undergo expansion-and-contraction vibration in response to the drive signal laminated to one or more piezoelectric elements polarized to undergo flexural vibration in response to the drive signal, and the piezoelectric vibrator is disposed so that a side face thereof is in contact with the movable member and undergoes elliptical movement in response to the drive signal to drive the movable member.

45. (new) An ultrasonic motor according to claim 44; wherein the support member has a set of signal lines fixed thereto for transmitting the drive signal to the piezoelectric vibrator.

46. (new) An ultrasonic motor according to claim 44; wherein the support member has sufficient elasticity to elastically urge the piezoelectric vibrator against the movable member.

47. (new) An ultrasonic motor according to claim 44; wherein the support member has a relatively thinner constriction portion and a relatively thicker connection portion, the constriction portion being effective for decreasing vibration losses.

48. (new) An ultrasonic motor according to claim 44; wherein the support member comprises part of the substrate.

49. (new) An ultrasonic motor according to claim 48; wherein the substrate has a recess portion in which is disposed the piezoelectric vibrator.

50. (new) An ultrasonic motor according to claim 44; wherein the support member includes thereon at least a part of a drive circuit for producing the drive signal.

51. (new) An ultrasonic motor according to claim 44; wherein the support member is positioned to support the piezoelectric vibrator at a vibration node of the piezoelectric vibrator to thereby reduce vibrational loss.

52. (new) An ultrasonic motor according to claim 44; wherein the support member comprises two support member pieces disposed on opposite sides of the piezoelectric vibrator for supporting the piezoelectric vibrator.

53. (new) An ultrasonic motor according to claim 52; wherein each of the support member pieces has a set of signal lines fixed thereto for transmitting the drive signal to the piezoelectric vibrator.

54. (new) An ultrasonic motor according to claim 44; wherein the support member comprises a pair of support members disposed on opposite sides of the piezoelectric vibrator.

55. (new) An ultrasonic motor according to claim 54; wherein the support members have an L-shaped form, one leg of each support member is fixedly attached to the substrate, and another leg of each support member is fixedly attached to the piezoelectric element.

56. (new) An ultrasonic motor according to claim 55; wherein the one leg of the support members is soldered to the substrate and the other leg is adhered to the piezoelectric element by conductive paste.

57. (new) An ultrasonic motor according to claim 54; wherein the support members each have an I-shaped form with upper and lower portions having a larger width than a middle portion, the lower portion of each support member is fixedly attached to the substrate, and the upper portion of each support member is fixedly attached to the piezoelectric element.

58. (new) An ultrasonic motor according to claim 57; wherein the middle portion of each support member is flexible so that the piezoelectric vibrator is resiliently biased in contact with the movable member.